

21



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,182	01/08/2001	Yutaka Katsuyama	826.1411D2	3899

21171 7590 04/06/2005

STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

COUSO, YON JUNG

ART UNIT PAPER NUMBER

2625

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/755,182

Applicant(s)

KATSUYAMA, YUTAKA

Examiner

Yon Couso

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15,28,39 and 45-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48-50 is/are allowed.
- 6) ☒ Claim(s) 15,28,39 and 45-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's arguments filed January 24, 2005 have been fully considered but they are not persuasive.

a. The applicant argues that Naoi and Bessho do not teach or suggest using height/width ratios. Examiner notes that the claims are rejected based on new ground of rejection as being unpatentable over by Bessho, 5,898,795 in view of Cullen et al (US Patent No. 5,465,304).

b. The applicant argues that Bessho is deleting small black runs, not because of its size, but because of its distance. Bessho clearly teaches deleting small black runs (column 12, line 53). The word small is a very good indication as to why these small black runs are deleted (the size). This is a clear suggestion that the Bessho delete black runs that are less than a threshold.

c. With regard to newly added limitation 'extracting black pixel concatenation regions from an input image and extracting one or more segment patterns using the pixel concatenation regions', Bessho discloses extracting black pixel concatenation regions from an input image and extracting one or more segment patterns using the pixel concatenation regions (S110 in figure 5).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15, 28, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Bessho, 5,898,795 in view of Cullen et al (US Patent No. 5,465,304).

For claims 15, 28, and 39, a ruled line extracting apparatus, computer-readable storage medium, and method are provided by Bessho in at least the abstract. A straight line extracting means for extracting information of one or more straight line patterns from an input image is provided by Bessho in at least Fig. 2, block 10, or Fig. 3, block 20, providing for an input image, and at least the paragraph bridging cols. 8-9, and the first three full paragraphs in c. 9, and at least Figs. 4-5, 7-12, 13B, and 15, where extracting is explicitly provided by Bessho. Straight line deleting means for determining whether or not to delete one among the one or more straight line patterns by using at least one of information about a shape of the one among the one or more straight line patterns is provided by Bessho in at least the first two full paragraphs in c. 11 by shape, and alternately in the first two full paragraphs in c. 12. Even though Bessho does not teach in detail on information about a ratio between a height and a width of the one among the one or more straight line patterns, Bessho clearly teaches shape information which broadly includes a ratio between a height and a width. Cullen teaches information about a ratio between a height and a width of the one among the one or more straight line patterns (column 11, line 24-column 12, line 35) in the image extracting system where the ratio information is used in deciding whether to delete the pattern within the mask or not (column 17, lines 11-20). Given the references at the time the invention was made, it would have been obvious to one of ordinary skills in the art to incorporate Cullen which utilizes a ratio between a height and a width to determine whether to delete some information in the image extracting system into Bessho's ruled line extracting system because Bessho already teaches straight line deleting means for

Art Unit: 2625

determining whether or not to delete one among the one or more straight line patterns by using at least one of information about a shape.

3. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessho, 5,898,795.

For claims 45-47, a ruled line extracting apparatus, computer-readable storage medium, and method are provided by Bessho in at least the abstract. Bessho teaches extracting black pixel concatenation regions from an input image and extracting one or more segment patterns using the pixel concatenation regions (S110 in figure 5). A straight line extracting means for extracting information of one or more straight line patterns each of which includes the extracted segment pattern is provided by Bessho in at least Fig. 2, block 10, or Fig. 3, block 20, providing for an input image, and at least the paragraph bridging cols. 8-9, and the first three full paragraphs in c. 9, and at least Figs. 4-5, 7-12, 13B, and 15, where extracting is explicitly provided by Bessho. Straight line deleting means for determining whether or not to delete one among the one or more straight line patterns by using at least one of information about a length of the one among the one or more straight line patterns is provided by Bessho in at least the first two full paragraphs in c. 11 and alternately in the first two full paragraphs in c. 12. Even though Bessho does not teach in detail on deleting a first line pattern when the length of the first straight line pattern is less than a threshold value, Bessho clearly teaches deleting small black runs (column 12, line 53). This is a clear suggestion that the Bessho delete black runs that are less than a threshold. Given the reference at the time the invention was made, it would have been obvious to one of ordinary skills in the art to

Art Unit: 2625

delete a first line pattern when the length of the first straight line pattern is less than a threshold value because Bessho discloses that the small black runs are deleted and that suggests that deleting a first line pattern when the length of the first straight line pattern is less than a threshold value.

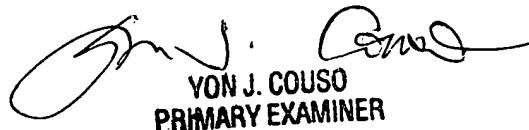
4. Claims 48-50 are allowed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (571) 272-7448. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YJC

  
YON J. COUSO  
PRIMARY EXAMINER

April 4, 2005